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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

IN RE ACACIA MEDIA
TECHNOLOGIES CORPORATION

No. C-05-01114 JW (HRL)
MDL No. 1665

DEPOSITION OF S. MERRILL WEISS
Los Angeles, California
Friday, September 2, 2005

Reported by:
BETH HANDWEILER
CSR No. 3492
JOB No. 37970

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Deposition of S. MERRILL WEISS, taken on behalf of Defendant Coxcom, Inc., and Hospitality Network, at 601 South Figueroa Street, Suite 3400, Los Angeles, California, beginning at 9:37 a.m. and ending at 4:58 p.m. on Friday, September 2, 2005, before BETH HANDWEILER, Certified Shorthand Reporter No. 3492.

common knowledge in 1990, correct? Common knowledge among people of ordinary skill in this art?
A I believe it was.
Q What is the CCITT?
A I can't quite do it with the right French accent, but it's the international telecommunications consultative committee basically, in English.
Q Do you know Dr. Lippman?
A Yes.
Q You knew him before this deposition?
A Yes.
Q Would you agree with me that he has an outstanding reputation in his field?
A Yes.
Q Pardon me?
A Yes.
Q Are you familiar with his work at MIT?
A Somewhat.
Q Are you and Dr. Lippman in the same field?
A In some ways, yes, and in some ways, no.
Q Can you explain that?
A We both do work in the area of -- let me call it electronic media. He approaches it much more from the computer and computing direction. I approach it much more from the television and electronic media

direction.

Q Knowing his qualifications and after reading the patent, do you have any doubt that he's qualified to give opinions about this technology?

A Qualified to give opinions? I would say yes. It doesn't mean I'll agree with them.

Q Are you going to give opinions at the hearing responsive to Mr. Lippman's opinions?

A I don't believe so.

Q You just made the day a little shorter, but we'll talk about that a little more later.

Do the phrases "high level diagram" and "detailed block diagram" have any significance to you?

A I understand what they mean.

Q Are there any differences?

A It would depend on the particular way somebody used those terms, but I would normally expect there to be differences.

Q What is a broadcast engineer, sir?

A A broadcast engineer is someone who does technical work in the field of broadcasting.

Q What kind of technical work?

A There is a whole range of work that falls under the category of broadcast engineering, so --

Q Let me ask it a different way then. What do you mean by broadcasting?

A Broadcasting historically has been -- has involved the transmission of signals using radio waves. It has come to have a much broader meaning in recent years, so that it involves the dissemination of programming to the public through either the classic radio frequency broadcasting through distribution on satellite, or cable. Broadcast engineering is even being applied these days to the development of content that -- and distribution of content that's flowing over the internet.

Q Have you ever built an encoder yourself? I'm not talking about designating it to somebody else. Have you ever built one?

A Any kind of encoder?

Q Yes, sir.

A Yes.

Q What kind?

A An NTSC encoder.

Q What is an NTSC encoder?

A It stands for National Television Systems Committee. The encoder was a color encoder to take signals from a camera and convert them into an NTSC compatible color television signal.

Q When did you do this?

A I want to say in the late '70s. Mid to late '70s. Somewhere in there.

Q So what was encoded in the NTSC encoder?

A What was encoded?

Q Yes, sir.

A Well, the way an NTSC encoder works, it takes input from the three signals coming out of a color camera, red, green and blue. It converts them into a luminance and two color different signals, and then modulates the color different signals onto a sub-carrier. In any event, I guess the short answer is what was encoded was television signals. We're probably getting a little too technical.

MR. DORMAN: It happens in these cases.

BY MR. McMAHON:

Q Did these signals involve compression?

A NTSC is an analog system. I gave a paper once that basically said that NTSC was the first compression system, but it was analog as opposed to digital, in the way it did its compression.

Q So it compressed analog signals?

A And the result was an analog signal, and it did it using analog methods. I just thought of something, too, by the way. When you were asking me earlier was I involved in compression, you will notice in my resume that I had a company called Imagex in the mid-'80s, and we were involved in compression at that point.

Q Compression of what?

A I'm sorry, compression --

Q Compression of what?

A Of video.

Q Why?

A Why? Because we were trying to fit more images into less space, both on optical disks and in memory.

Q For purposes of storage or transmission?

A For purposes of storage and processing, not really transmission.

Q Are you an expert in data compression?

A No, I would not consider myself an expert in data compression.

Q You have mentioned that you've -- rather your CV refers to a number of committees that you are on, SMPTE committees?

A Yes.

Q Do you get paid for your work with the SMPTE committees?

A A few, yes. Mostly, no.

Q Why would you get paid?

A If a client needs a particular standard developed or needs to have participation in the

A Yes. Broadcast engineering at least, publications.

Q Can you give me an example of such publications?

A Broadcast Engineering is the name of the magazine, TV Technology, the SMPTE Journal. Perhaps the IEEE Transactions on Broadcasting, although that tends to be more in the radio frequency area, RF area. There was another magazine back then that's now defunct. I'm trying to remember what its name was. I think it was called TV Broadcast. There are a whole range of others. I mean there is one called Videography. There are lots of technical journals -- or technical magazines is a better term, related to electronic media industry that existed then. And your question was specifically with respect to broadcasting, was it not? Broadcast technology?

Q My question was would the person of ordinary skill in the art in January 1991 subscribe to broadcasting publications, and then you said yes, and I asked you to give me examples.

A Okay.

Q So you are done with your answer?

A Yes.

Q Would a person of ordinary skill in the art in

January 1991 have known about time codes?
A Absolutely.
Q Why?
A Prevalent in the industry.
Q Would the person of ordinary skill in the art have been familiar with SMPTE 12M?
MR. DORMAN: This is January of '91?
MR. McMAHON: Right.
THE WITNESS: Yes.
BY MR. McMAHON:
Q Were ISO reports generally available to people of ordinary skill in the art at that time?
A Available, yes. Probably not as widely spread in terms of their being on people's shelves, but certainly available.
Q What about ISO draft reports? Do you understand they were published?
A Again -- well, certainly if they're available, then some people would have them.
Q Some people of ordinary skill?
A Of ordinary skill.
Q Are you, sir, familiar with the MPEG video committee draft report published in December 1990?
A That document per se I don't recollect, but certainly I was aware of MPEG and all of its creations.

Q Were you aware of what was going on with MPEG in December 1990 and January 1991?

A More or less.

Q Were people of ordinary skill in the art aware of what was going on with MPEG and the ISO committee?

A Probably they were aware, but probably not on a technical level, because there was certainly publication going on back then about the activities of the committee, but the document I don't think was actually published until '91.

Q Would a person of ordinary -- well, maybe you don't know this because you are not an expert in compression. If you don't know, tell me. Would a person of ordinary skill be familiar with discrete co-sign transforms in January 1991?

A I have to think about the timing of that. I wrote a book that covers discrete co-sign transforms, but it was several years later. I think that was known generally by then. Probably not that it was part of MPEG, but it was known for its use in other schemes by then.

Q Such as H.261?

A Video compression schemes, yes.

Q Would a person of ordinary skill in the art in December 1990 or January 1991, have known about

I-frames, P-frames and B-frames?

A Certainly not B-frames, because they were part of MPEG-2, and that didn't come until later.

Q You're sure about that?

A I am pretty sure about that.

Q I'm interrupting. Did you finish your previous answer?

A No. I-frames and P-frames, probably -- well, I don't remember whether those terms were used in earlier documents, but the MPEG-1 document, if I remember correctly, came out in early '91, and would have used those terms, and that's after January. So I don't believe that -- well, I just don't know whether -- don't remember whether other documents were using that terminology prior to then.

Q Did H.261 disclose how to code P-frames?

A I haven't looked at H.261 in a very long time. I don't remember.

Q Was the concept of GOP, G-O-P, headers known to people of ordinary skill in the art at the time we're talking about?

A I don't recollect that concept prior to MPEG, so unless it was contained in some other earlier documents -- and I don't remember those earlier documents well enough to know -- to be able to say with any specificity.

Q Is this a true statement as of January 1991? A video sequence of groups of pictures input to the decoder may be different from the one at the encoder output due to editing?

A I'm sorry, could you read that again?

Q I'm going to give you a statement. I want to know whether it's true as of January 1991. A video sequence of groups of pictures input to the decoder may be different from the one at the encoder output due to editing?

MR. DORMAN: Objection, unintelligible. If you can answer it, answer it.

THE WITNESS: Due to editing? And so your question is is that technically true?

BY MR. McMAHON:

Q Was that statement true at that time?

A If I understand it correctly, it's not even true today, so I would presume it wasn't true then.

Q Why is it not true today?

A Because you don't normally do editing inside an encoder, if I'm understanding the question correctly and the statement correctly.

Q And if I took the last three words out there, "due to editing," would the statement have been true as of 1991, January?

MR. DORMAN: Why don't you restate it without these three words.

BY MR. McMAHON:

Q A video sequence of groups of pictures input to the decoder may be different from the one at the encoder output?

A That would be true from several perspectives.

Q From what perspective, sir?

A The frames on the output of an encoder are sent in a different sequence when they're in the encoded stream than they occur on the input to the encoder and on the output of a decoder. In addition to that, because this kind of encoding is lossy, there will be differences, once the video stream is decoded. So there will be detectable, often noticeable, sometimes quite noticeable differences between the input and the output because of the lossy compression.

Q Have you ever heard of a sequence counter?

A Sequence counter? I've heard of many counters. Maybe you're referring to some specific one in the document. I can certainly understand what a sequence counter would be.

Q Have you ever heard of a sequence counter?

MR. DORMAN: At any time?

inner workings of MPEG, I don't consider myself to be an expert. When it comes to using it, evaluating it, a variety of other things, I probably do have a sufficient knowledge to be considered expert.

Q I don't understand that answer. When you use it or evaluate it aren't you dealing with the inner workings of MPEG?

A What I was differentiating was designing -- for instance, designing an MPEG encoder from applying an MPEG encoder. So I would not consider myself to be sufficiently expert with MPEG to design the routine that does the DCT and the zigzag scanning and things like that, but I would be certainly sufficiently expert to design a system that used MPEG-2, to choose equipment, to set the parameters, things of that sort.

Q Going back to claim 7, there is a reference -- well, the word "transforms" appears. Does that mean place?

A I'm sorry, does that mean?

Q Place or places.

A If I were looking for a synonym, I would probably use one like converts perhaps.

Q How do you convert digital data blocks into a group of addressable data blocks?

A In the initial case they're perhaps

unassociated. They're part of a -- or they're not associated as part of a group. They may be part of a sequence. I'm looking at a group as being a subset out of a sequence, out of an overall sequence when I read that. And so if I wanted to take some part of the sequence and make a group out of it, that's what this would be.

Q Well, what is the sequence that you're referring to? In other words, what do you mean when you say the word "sequence" in that previous answer?

A Let's suppose I've got -- let me call it an audiovisual work, and that audiovisual work is composed of a large number of frames of video and corresponding audio segments. And I time encode that to indicate the sequence from beginning to end of that audiovisual work. That would be the -- call it the basic function of the time encoder.

I could then subdivide that audiovisual work into segments that would be where the frames within those segments would be grouped together. And so I would be converting the initial sequence into subsets that would be represented by those groups. That's the way I think about -- I've thought about it. That's why I used the term convert. So I'm taking the initial sequence, and out of that I'm making groups.

Q Tell me precisely what gets time encoded on this invention.

A As I understand it, the frames of video get time encoded. Or the data that represents those frames of video get time encoded.

Q Before compression?

A It happens -- the time encoding takes place before compression, but the code that represents the time then continues to be associated with the individual frames after compression.

Q What do you mean when you reference "the code that represents the time"?

A When you time encode video content you apply to it -- to each frame a value that states where it occurs along a time continuum.

Q And where does this time stamp go?

A It depends on the form that the content is expressed in. So, for instance, if you're talking about a videotape and you're talking about a particular format in a videotape, then it could go on an audio track as a longitudinal time code, for instance. If you are talking about another form of videotape, it could go in the vertical interval of the video. If you are talking about a digital representation, it could be expressed in one of a couple of different ways as data within the --

within the data that represents the video frame.

So depending on how the video is -- how the video itself is encoded or expressed, the time stamp, if I could call it that, that applies to each frame would be carried in a different way.

Q You're talking about SMPTE time stamps, correct?

A That's what I have in mind specifically, yes.

Q Is that what the patent contemplates?

A Well that's certainly encompassed by what the patent contemplates.

Q Well, what -- define for me, as precisely as you can, what kind of time stamps are applied in the time encoder 114?

A When you say define for you, do you mean define at a highly technical level, or in terms of the standards that might be used, or what kind of answer --

Q At the standard level. I want to know what kind of time stamps are being applied.

A Well, the one that came immediately to my mind when I saw this was the SMPTE 12M style time code. Clearly there could be other -- I mean I could name a number of other standards that exist that could have been applied.

Q Such as?

A An earlier thing that I am aware of was called IRIG, I-R-I-G, that was used for telemetry, I think, by NASA. There were other time codes that existed for telemetry and data stamping, as I recollect that, but IRIG is the other one that comes to mind.

Q SMPTE and IRIG?

A There are others, but those are the ones --

Q Well, what others? This is my time to find out what is in your mind.

A Those are the only ones that come to mind at the moment. I know there are others, but I would have to go back and think about it or do some research to get you anymore.

Q So you had those VITC, V-I-T-C, time codes, LITC time codes --

A LTC.

Q And then those data time codes under SMPTE, right? You described three types --

A If you want to describe it as data time codes, that's fine.

Q Well, how did you describe it? Give me a label --

A One was called DVITC, which is essentially a digital representation of an analog signal carrying digital information. It's very convoluted. Another one is where digital time code is carried as ancillary data in the vertical interval. It's just carried as data. There may be yet another representation that is metadata.

Q These are the SMPTE time codes that fall within the scope of the patent, in your opinion?

A Yes.

Q And are these the kinds of codes that a person of ordinary skill would have concluded were contemplated by the patent in December 1990 or January 1991?

A Actually I was going to mention that there were time coding mechanisms that came in MPEG, but that was after the patent. And, in fact, I think some of the digital codes that I mentioned to you earlier may have been after the patent. I was just thinking in general about SMPTE time codes.

Q All right. Let's be real clear. My questions before were not related time, the first one. I asked you to tell me what kind of time codes are contemplated by this patent and you told me SMPTE and IRIG. Now you are telling me something else?

A No. I'm just saying that when I listed the various forms of SMPTE time codes, I was doing that without thinking about whether they were in existence in 1991, and so some of them that I told you about may have come along after 1991. I'm trying to be as accurate as I can be for you.

Q Either I'm slow or you're not being accurate. Now you just mentioned MPEG. Are you telling me that MPEG time stamps fall within the scope of this patent?

A No. What I said was that I was going to mention MPEG, and then it occurred to me that MPEG came later than the patent. And so therefore I was not mentioning it. I probably shouldn't have said the words to begin with, once I realized that it was after the patent.

Q Well, forgetting the date of the patent, are you of the opinion that MPEG time stamps fall within the scope of this patent?

MR. DORMAN: Objection. The question is unintelligible as asked.

BY MR. McMAHON:

Q Do you understand the question? Are you of the opinion that MPEG time stamps fall within the scope of the patent?

A Taken by themselves they might not, but taken with the appropriate -- there are standards in place in which you -- or standards that exist in which you take an externally applied time code and conform the MPEG time stamps to it, so that essentially you are using the

MPEG time stamps to transport an already applied SMPTE time code.

And so in that situation, yes, it would fall within the --

Q If the MPEG time stamps carried a SMPTE time stamp with them?

A Carried the information.

Q "The information" meaning the SMPTE time code?

A The time code that was already applied to the data. So that it followed this -- it followed the sequence of -- I probably shouldn't use the word "sequence" because it will be confusing. It followed the arrangement that is required by the patent, if there is a particular arrangement that is required by the patent. That would be a mechanism by which the MPEG time information would carry the same data.

Q The SMPTE data?

A Or whatever it was.

Q Meaning what?

A Well, for instance, if it happened to have been IRIG.

Q Okay, SMPTE or IRIG. All right.

A Or whatever other technique somebody chose to use.

Q All right. And just so I'm clear then, in your opinion, the MPEG time stamps would only fall within the scope of the patent if they carried the SMPTE time code information or the IRIG time code information?

A Or any other form of time coding -- the information from any other form of time coding somebody might have used. It's the information carriage that's the important factor in what I'm describing.

Q Well, I'm -- what about MPEG time stamps by themselves? Like DTS.

A You mean PTS?

Q DTS. It's my example.

A If MPEG time stamps are applied independently, without reference to the time coding that is shown as being associated with the sequence, prior to compression, then that, to my way of thinking, would not be a method of carriage of the same information that's applied by the time encoder that's described in the patent. It's a new application later in the process. But there are mechanisms that are available for applying -- for carriage of the time information that's already associated with the content through MPEG encoding.

Q I'm not following you so I need more clarity. What about a program clock reference?

A PCR is not really a time stamp. It's a

You're the expert. You are the one that's going to come into court and give us answers, supposedly, and supposedly help the court out. I assume you're not going to do that then, and I don't think you should particularly be wasting everybody's time doing it now if you really do have the answers, which I think you do have them. Can you answer this matter-of-factly without having to engage in this dilatory proceeding that we're seeing?

A Would you like to ask a question again?

Q Do you remember what it was? You said the difference between claim 1 and claim 7 is because claim -- is because claim 1 has assignment of time markers to the complete sequence of data blocks and not just the ones that are part of groups, and I asked you what your basis for that was.

A And the short answer is it's in the patent, and I was trying to give you more precision as to where in the patent.

Q All right.

A That's why I was looking at the document.

Q Look in the patent and tell me where it is. Can you do that without having to read the whole thing?

MR. BLOCK: Objection. He just did that. He told you which occurrences. It says right here what parts of the patent.

BY MR. McMAHON:

Q Is that your answer? Because it seems to me like you lost your train of thought at the end. You waited so long you didn't remember what you had been saying. Is your answer the one that's attributable to number 25?

MR. BLOCK: I believe he said more than just 25.

THE WITNESS: I believe what I said to you was that the basic definition was in one place and that the addition of the grouping was in another place, and I gave you the references to those.

BY MR. McMAHON:

Q Your answer was "in I guess it's instance or occurrences as I called them, 28, 29 and 30, there is a description of assigning relative time markers to the audio and video data. And occurrence 25 is when the description occurs of a placement into groups of addressable data blocks." Is that your response to my question?

A Yes.

Q And which is 25, occurrence 25 in your chart? Is that the sentence that says -- well, you tell me.

A It's the sentence that says "time encoder 114 places the blocks of converted formatted information from converter 113 into a group of addressable data blocks."

Q And that's the sole basis for your opinion that the difference between claim 1 and claim 7 is because 7 addresses transforms the blocks into a group of addressable blocks? You're focusing on the word "group," right?

A Yes.

MR. BLOCK: Objection. Mischaracterizes his testimony.

MR. McMAHON: He just said yes.

Q Do still frames have to be time encoded?

MR. BLOCK: Objection. Vague, ambiguous.

THE WITNESS: It looks to me like not under all of the claim.

BY MR. McMAHON:

Q Just so we're clear, I waited a minute and 58 seconds for that answer.

Going back to the time marker, how does the time marker transform the blocks or frames into a group?

A By applying additional data to them as part of the time identification.

Q What additional data?

A If we're in the SMPTE time code domain, there are mechanisms for being able to do that.

Q My question is what additional data?

A The provision is made for carrying, as part of the time code system, additional information such as, for instance, scene or take or -- what else is in there? Equipment. There are a variety of additional forms of data that can be applied that gets carried as part of the time code. And that is one mechanism that can be used to indicate groups of blocks that are part of a sequence.

Q What defines --

A How long did it take for that answer?

Q About as long, but, you know --

MR. BLOCK: I object. It didn't take --

MR. McMAHON: We'll be here as long as we want.

Q What defines the creation of a group?

A I don't remember there being any specific definition of a group, other than that they can be found as part of a group. In other words, whatever an operator might want to associate with the group would seem to me to be --

Q How do you know whether you are looking at one group or two groups?

A I'm not sure I understand the question. You would have data that identifies blocks as being part of a group. Somehow I'm not understanding your question, I think.

Q Well, maybe it's because I don't understand your answer when you said, "I don't remember there being any specific definition of a group, other than they can be found as part of a group." This is your chance. If you want to give me any other answer, then fine, but I'm going to object to you telling me anything else at the hearing that you're not telling me today. Do you have anything else to tell me as to what defines a group?

A Is your question with respect to what is the purpose of a group, or from a data organization standpoint what is a group?

Q My question is what defines the creation of a group?

A Creation of a group. The association with the member blocks of that group of an indicator that they are part of the group.

Q Give me an example.

A I'm going to imagine a construct to give you an example. I've got an audiovisual work that has three acts to it, and I want to associate some of the frames with act 1, some of the frames with act 2 and some of the frames with act 3. And as part of the time code data I can put in an indicator that says these frames are part of act 1, and another subset of that can be associated with a code that says act 2, and another subset can be associated with an appropriate code that says part of act 3.

Q So is it correct to say that you need more than merely a time marker in order to transform digital data blocks into a group of addressable data blocks?

A No. What I was just describing is part of the time code.

Q When you use an indicator that says these frames are part of act 1 -- that's something other than a time code, isn't it?

A It is an element of the time code.

Q So a time code isn't merely an hour, minute, second, is it?

A And frames.

Q It's more than all four of those. Is that what you're saying?

A It can be.

Q Is it within claim 7? This is your answer, sir. You just talked about an indicator of which act you are in. All I want to know is just tell me, as precisely as you can, what is used to transform digital data blocks into a group of addressable data blocks, as contemplated by claim 7.

A It seems to me there are two ways that can be done. One is by including an indicator within the time code that associates frames with parts of -- as parts of groups. The other is to collect time codes that are associated with frames into -- call it an external -- I want to use the word database -- that indicates the association between those frames.

Q And are either of these disclosed in the specification?

A Not specifically. Both were known at the time, well-known at the time.

Q You said not specifically. Was it implicitly anywhere in that patent?

A Those were techniques that were well-known in the industry in the '80s as available to do the sort of thing that's being described here.

Q And you haven't provided us with any evidence of that in your declaration report, have you?

A If you mean by "evidence," a reference to those -- the documents that support that, no. I can tell you to go look at SMPTE RP 135, if you want to see where it is.

Q Other than what you've told me, these indicators and references to time, does the time encoder do anything more in claim 7?

A I'm sorry, I was thinking about something else.
Q Does the claim do anything more in claim 7 that you haven't told us about? Let me strike that. Does the time encoder do anything more in claim 7 that you haven't told us about?
A Nothing that comes to mind at the moment.
Q Would you look at figure 2a in the patent? What is represented by that arrow that goes across the bottom?
A As I recollect it, that's the path that allows the transfer of precompressed material coming from an interlibrary data transfer into the -- if I remember right, 117 prime is the storage component that's part of the compressed data formatting section.
Q All right. New topic. What is the -- strike that. Is there a distinction in the '702 patent between uniform ID code and a uniform address code?
A I'm sorry, the noise outside was distracting. Can you say that again?
Q Is there a distinction in the '702 patent between uniform --
MR. BLOCK: Should be identification code, I think you meant to say.
MR. McMAHON: Yes.
Q Between unique identification code --